

**CLAIMS**

1. A method of colour matching comprising the steps of:  
sensing colour information representative of an article being sampled,  
5 with a portable user device (10) having an optical sensor (11);  
generating a colour definition data file (14,19,20) from said colour  
information;  
transmitting said colour definition data file to a remote database  
(30,42,43,44);  
10 searching the database for data items that match colour criteria  
indicated by the transmitted colour definition data;  
generating a list of said data items; and  
transmitting said list of data items to the user device.
- 15 2. The method of claim 1 in which the sensing step includes  
directing a digital camera (11) at at least a portion of the article to form an  
image thereof and defining a target region of the image for which target region  
the colour information is to be sampled.
- 20 3. The method of claim 2 further including determining an average  
of the sensed colour information or a representative colour set, for use in  
generating the colour definition data file.
4. The method of claim 1 in which the sensing step further includes  
25 determining a temperature of the light illuminating the colour image.
5. The method of claim 4 in which the step of generating a colour  
definition data file (14, 19, 20) includes incorporating temperature of the light  
illuminating the image that produced the colour definition data file.
- 30 6. A method of colour matching comprising the steps of:

sensing colour information representative of an article being sampled,  
with a portable user device (10) having an optical sensor (11);

generating a colour definition data file (14,19,20) from said colour  
information;

5       transmitting said colour definition data file to a remote database  
(30,42,43,44);

receiving from the remote database a list of one or more data items  
(each relating to an article) that matches colour criteria indicated by the  
transmitted colour definition data; and

10       providing as output to a user the one or more data items in the list on  
the portable user device.

7.       The method of claim 6 further including the steps of:

receiving product location information with each of the received data  
15   items; and

providing as output said product location information on the portable  
user device.

8.       A method of colour matching comprising the steps of:

20       receiving a colour definition data file (14,19,20) including colour  
information representative of a sampled article, from a portable user device;

searching a database (30,42,43,44) for data items that match colour  
criteria indicated by the transmitted colour definition data;

generating a list of one or more data items each relating to an article  
25   that matches colour criteria indicated by the received colour definition data file;  
and

transmitting said list of data items to the user device (10).

9.       A method of colour matching using a portable colour matching  
30   device (10), comprising the steps of:

sensing colour information representative of the colour of an article  
being sampled with an optical sensor (11);

generating a colour definition data file (14) from said colour information;  
storing a plurality of colour definition data files (19,20) relating to  
previously sampled objects;

receiving a colour definition data file (14) relating to a current sampled  
5 article, and searching colour definition data files in the memory to determine if  
any of the stored files (19, 20) match colour criteria indicated by the colour  
definition data (14) for a current sample; and

providing as output on the colour matching device an indication if any  
stored files match the colour criteria.

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10. A portable colour sampling device (10) comprising:

an optical sensor (11) for sensing colour information representative of  
the colour of an article being sampled;

means (12) for generating a colour definition data file (14,19,20) from  
15 said colour information;

a wireless transmitter (22) for transmitting said colour definition data file  
to a remote database (30,42,43,44); and

a wireless receiver for receiving (22), from said remote database, a list  
of data items that match colour criteria indicated by the transmitted colour  
20 definition data.

11. The sampling device of claim 10 in which the optical sensor (11)  
further includes means for determining the temperature of the light used to  
illuminate the colour image.

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12. The sampling device of claim 10 further including means for  
transmitting, with the colour definition data file, an indication of current location  
of the sampling device.

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13. A colour matching server (40, 41) comprising:

means for receiving, from a portable colour sampling device a colour definition data file (14,19,20) indicating sensed colour information representative of the colour of an article;

5 a database of data items (42,43,44), each data item relating to an article and one or more colour properties of that article;

a search engine for receiving the colour definition data file and locating, in the database, data items that match colour criteria indicated by the transmitted colour definition data;

means for generating a list of said data items; and

10 means for transmitting said list of data items to the portable colour sampling device.

14. The colour matching server of claim 13 in which each data item further includes data identifying an indication of retail location of the respective  
15 article.

15. A portable colour sampling device (10) comprising:

an optical sensor (11) for sensing colour information representative of the colour of an article being sampled;

20 means (12) for generating a colour definition data file (14) from said colour information;

a memory (18) for storing a plurality of colour definition data files (19,20) relating to previously sampled objects;

25 a comparison engine for receiving a colour definition data file (14) relating to a current sampled article, and for searching colour definition data files (19,20) in the memory to determine any of the stored files which match colour criteria indicated by the colour definition data for a current sample; and

means for indicating determined stored files that match the colour criteria.